

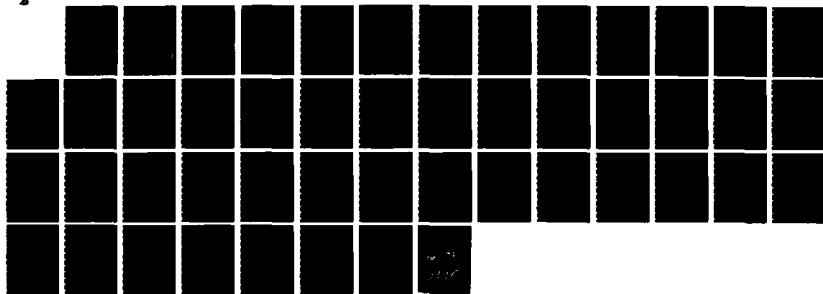
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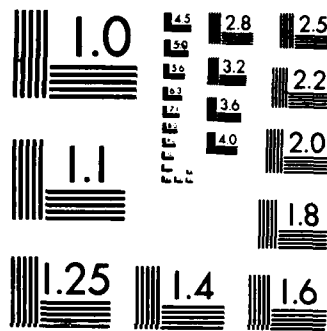
PREREQUISITE FOR VICTORY: THE DISCOVERY OF THE
CULMINATING POINT(U) ARMY COMMAND AND GENERAL STAFF
COLL FORT LEAVENWORTH KS SCHOOL OF ADVANCED MILITARY
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Prerequisite for Victory: The Discovery of the Culminating Point

by

Major David J. Benjamin Jr.
Infantry

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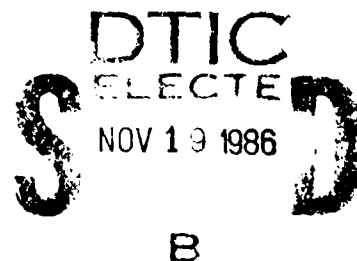
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ABSTRACT

Prerequisite for Victory: The Discovery of the Culminating Point , by Major David J. Benjamin Jr. USA, 44 pages.

This monograph is a theoretical and historical discussion of the culminating point. Initially, the author discusses the theoretical contributions that Clausewitz, Jomini, and Tukhachevskiy have had on the subject. Departing from this theoretical base, the author analyzes two major historical campaigns, the Soviet winter offensive in January 1943 to trap Army Group Manstein, and the race to the Dnepr in September 1943. The author analyzes these campaigns using the Colonel Huba Wass De Czege combat power model to identify the factors of culmination.

The author concludes that the factors contributing to the culmination of combat power are too numerous and vary too rapidly to allow for an accurate prediction of the culminating point during the campaign's planning phase. But the author does value the consideration of the culminating point during both the campaign planning and execution phases. This discussion on how to affect culmination offers some suggestions on how operational level leaders and their staffs can influence the culminating point.

This monograph is the initial process in identifying and defining the culminating point. It provides a point of departure for further discussion and research on a new concept introduced in the current U.S. Army FM 100-5, Operations.

AirLand Battle's Prescription

AirLand Battle Doctrine, as written in FM 100-5 Operations, prescribes the operational methods by which the U.S. Army fights. Initiative is one of the four pillars in its foundation. AirLand Battle doctrine emphasizes that leaders must secure and retain the initiative at the operational level of war, exercising it aggressively to defeat the enemy. Defeating the enemy is a product of throwing the enemy off balance with a blow from an unexpected direction and then continuing the pressure which prevents the enemy's recovery.¹ To deal an effective blow, one must understand the concept of the culminating point.

The revised edition of FM 100-5, dated 28 October 1985, emphasizes that operational level planners must consider the concept of the culminating point. But the coverage of this concept is limited and essentially theoretical in nature. The reader understands that culminating points must be identified during campaign planning, but FM 100-5 does not address how this is to be accomplished in practice.²

The purpose of this monograph is threefold. The first purpose is to provide some guidelines on how an attacker recognizes his own culminating point. The second is to consider what an attacker can do about culmination during planning. Lastly, this monograph will provide some guidelines on how commanders and their staffs during campaign execution might affect the culminating point.

To accomplish these goals, we will briefly review the theoretical aspects of the culminating point. Subsequently, we will turn to the problem of recognizing the culminating point with respect to historical evidence and determine the factors that lead to the culmination of combat power. Next, we will synthesize these factors with respect to modern considerations. Finally, the paper will provide some conclusions on how the attacker defer the culmination in modern operations.

THEORETICAL DISCUSSION

The discussion of the culminating point in theoretical and doctrinal writings is important because theory provides a foundation for discussion and a departure point for future doctrinal concepts. The theory of the culminating point will be viewed from three perspectives: Clausewitz's view as revealed in On War, Jomini's stance in The Art of War, and Tikhachevskiy's thought contained in selected writings. These three theoreticians are among the most important in military thought today.

Clausewitz

Clausewitz defines the culminating point as that "point where the attacker's remaining combat power is enough to maintain a defense and wait for peace. Beyond that point the scale turns...where the attacker's strength is exhausted."³ He indicates that the culminating point may

occur more than once in a war. Clausewitz observes that Napoleon achieved victory over enemy nations in one decisive campaign. However in future wars as in past wars there might be a necessity for a series of campaigns to achieve victory.⁴ This sequencing of campaigns at points of culminating combat power is a significant aspect of this monograph.

Although Clausewitz lists a number of factors which contribute to the culminating point, he concludes that it is difficult to predict the occurrence of a culminating point. He states that "If we remember how many factors contribute to an equation of forces we will understand how difficult it is in some cases to determine which side has the upper hand. Often it is a matter of imagination." Clausewitz states that the general simply must guess where the culminating point is.⁵ He further elaborates that during the conduct of a campaign it is difficult to change the commander's mind. If the commander prior to the campaign had planned to cease the attack at a predicted point of culmination but he discovers great success upon reaching that point, he may decide against all counsel to continue the attack.⁶

In sum, Clausewitz defines the culminating point as that point where the attacker has only sufficient strength remaining to conduct a defense. He also suggests that the culminating point may occur more than once during a campaign. Clausewitz further concludes that prediction of

the culminating point is impossible because of the many variables that influence it.

Jomini

Jomini does not address the term culminating point, but his discussions are related to the concept. He suggests ways the attacker might overcome the effects of exhaustion. His contribution to the theory of the culminating point is found in his discussion of the problems associated with attacking an enemy that is defending in depth. He comments that the attacker's first wave, having achieved victory, might continue to advance after defeating the enemy's first line of defense. When hitting the second line of defense "the attacking troops will usually be somewhat disordered." He further states that the defensive forces, if neither their flanks nor lines of retreat are threatened, will usually have the advantage at this point.⁷

From this discussion Jomini concludes that the attacker can offset this advantage of the defender by using a second echelon of troops and a reserve. This idea of echelonment was a unique concept at the time. It offers a possible solution to the problem of the culminating point. Jomini cautions that this series of echelons will be difficult to control by even the most skilled general.⁸

Tukhachevskiy

Mikhail Tukhachevskiy is another writer who does not explicitly use the term culminating point in his writings, but his theory and style of warfare have a strong link to the concept. Tukhachevskiy was concerned with the problems of World War I. He, like Jomini, was confronted with the problem of depth. Barbed wire, trenches, and machine-guns had enhanced the defense. The defense was no longer a thin line; it was a deep zone of trenches, barbed wire, and machine-guns. Therefore, the battlefield had expanded not only in width but in depth.⁹

Tukhachevskiy sought to overcome the defender's advantage by disrupting the enemy's defensive zone. He concluded that the battle would be decided inside the defensive zone at a considerable depth from friendly lines. To overcome the exhaustion of friendly troops, Tukhachevskiy, like Jomini, advocated the creation of a second echelon force that would exploit the success of the first echelon. His experiences in World War I, the Russian Civil War, and the Russo-Polish War supported his theory. He further stated that logistics was an important element in sustaining combat power on the battlefield.¹⁰

Finally, Tukhachevskiy recognized that culminating points may occur more than once during a war, which was consistent with the view of Clausewitz. In recognition of

this problem, he formulated a theory of successive operations. His theory called for operations to be planned in succession so that the enemy strength and natural obstacles could be overcome.¹¹ He concluded that commanders and their staffs should consider communications capabilities, command systems, lines of communication (LOC's), maintenance, repair facilities, replacement procedures, and combat service support assets when planning campaigns.¹² These are the factors that Tukhachevskiy believed influenced culmination.

Theoretical Summary

The culminating point is where the combat power of the attacker no longer sufficiently exceeds that of the defender, and beyond this point continued offensive operations risk overextension, the threat of counterattack, and defeat.¹³ A campaign is likely to have more than one culminating point which will necessitate conducting operational pauses to rebuild the attacker's strength. Theoretical writings also reveal a problem predicting the occurrence of the culminating point. However, theory does provide a list of factors which influence the culmination of combat power and also provides a concept of echelonment which may offset the problems of exhaustion.

HISTORICAL EVIDENCE

Historical analysis provides the student another tool with which to examine the culminating point as well as serving as a test for theory. The campaigns of the Eastern Front from January 1943 until October 1943 provide evidence of the factors contributing to culmination. They emphasize the operational significance of the culminating point.

Colonel Huba Wass de Czege's combat power model offers one way to analyze historical campaigns. This model was selected because it addresses that which culminates, combat power, and because it organizes logically the various factors which contribute to combat power at the operational level. This monograph analyzes the campaigns from the operational perspectives of firepower, maneuver, protection, generalship, plus two additions to the model: Command, Control, Communications, and Intelligence (C³I); and logistics.¹⁴

On to the Dnepr; January 1943

The Star and Gallop operations best depict the devastation which occurs when culmination is not properly considered at the operational level. Star and Gallop were the code names of the Soviet operations which followed the encirclement of Stalingrad. The Soviet High Command (Stavka) initiated both operations to continue the

reacquisition of Soviet territories between the Donets and Dnepr Rivers.

The victory of Stalingrad, which exceeded Stalin's expectations, wrested the strategic and operational initiative from the Germans. Stalin continued to press the Fronts in the region toward success because he thought the Soviet Army could deliver a single blow to the Germans and end the war in victory. Therefore, the scope of the campaign was to win the war. The Gallop campaign lasted from 20 January until 20 February and Star from 20 January until 3 March 1943. One must remember that the forces committed to these campaigns had been in combat since 18 November 1942. Once successful, Stalin continued to alter the campaign's objectives from crossings over the Donets River to the encirclement of German forces at Rostov, then to Zhdanov on the sea of Azov coast, and finally to Zoprozhye.¹⁵ (See map A, The objectives of Star and map B, The objectives of Gallop).

Firepower

Firepower suffered in two regards during this campaign. First, the Soviet force organization lacked sufficient mobile fire support units. Most artillery units were concentrated around the Stalingrad area. Secondly, there had been no plans to move air support facilities forward with advancing Fronts. The fast pace of the offensive rapidly outdistanced supporting air units.¹⁶ These two

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shortcomings prevented the commanders from concentrating firepower against an unexpected enemy when this additional combat power would have decided chance encounters.

Maneuver

With respect to maneuver, the Soviets had four problems. These were retention of sufficient reserves, failure to reduce enemy encircled forces in rear areas, the impact of severe terrain difficulties, and lack of mobility. The Soviets had significant reserves but most were allocated to the containment of the German Sixth Army around Stalingrad. By early February, Stavka prematurely committed the remaining reserves to plug the gaps which had appeared in their front lines as they advanced.¹⁷

Protection

Terrain is an element of protection in the Wass de Czege model. The Soviets had not considered the problems of terrain. They attacked perpendicular to the Aydar and Oskol River valleys which were not fully frozen during the mild winter. The numerous unfrozen rivers delayed the Soviet advance by canalizing their attacks. The small villages in the region provided excellent defensive positions. More important, motorized vehicle strengths of the committed units were reduced. The mobile units lacked trucks and tanks to maintain their advance.¹⁸

C3I

The Soviets lacked a system to keep commanders abreast of the enemy's strength. The command and control system did not allow for the operational level commanders to know the true situation because communications were strained by the distances involved. The result was an inability of the commanders to assess relative combat power. Finally, insufficient planning time was allocated to subordinates, who often planned hastily while operations were in progress.¹⁹ Subsequently, operations failed to consider all the available enemy information.

Logistics

Stavka had much to learn about logistics. The Soviets did not improve the poor transportation routes in the region. The lack of adequate maintenance programs also doomed the offensive. More tanks were lost to mechanical breakdown than to enemy fire. Stavka also failed to consider the fatigue of front line personnel. As a result, resupply was delayed by the poor roads and stocks rapidly became depleted. Units were committed without fuel or ammunition, and local labor was unable to resupply the fast moving mechanized forces.²⁰ As a result Soviet culmination occurred much sooner than anticipated. It appears that all other things being equal, logistics exerted the greatest influence on culmination.

Generalship

Perhaps the most fundamentally flawed element was the Soviet Army's generalship or leadership during this campaign. There were sufficient leaders; however, they did not have a good perception of the battle. Commanders were overconfident and did not consider the enemy's response. Their overconfidence was attributable to their lack of knowledge about their own units. Senior commanders communicated poorly with subordinate commanders; therefore, the commander's intent was unknown except at their own headquarters. These same leaders changed operational level objectives without indicating where subordinates were to accept risk. The result was disastrous; forces with barely enough combat power to defend were ordered to attack.

Soviet generalship also failed to anticipate the enemy's reaction. Instead of withdrawing, the Germans held their positions tenaciously. Hitler's refusal to give ground and his reinforcement of the region with strategic reserves confused Soviet commanders. Finally, Stavka underestimated Manstein and his resolve. Stavka and Stalin incorrectly viewed the movement of strong Panzer forces to the west as a major German withdrawal. It was too late when they realized Manstein was concentrating for a counterstroke.²¹

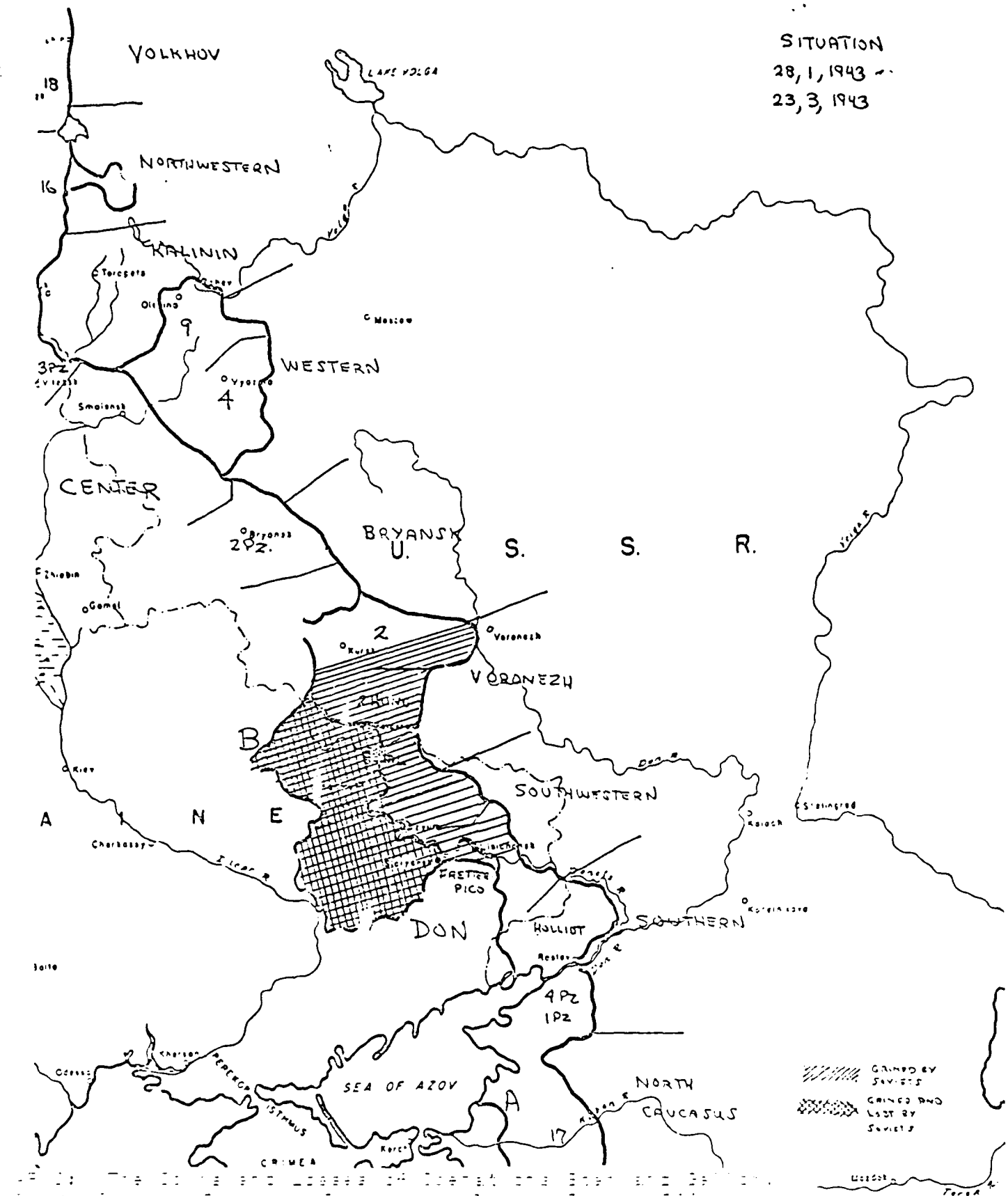
This campaign analysis of the Soviet drive to the Dnepr in early 1943 reveals various factors of exhaustion that

contribute to culmination. It is combat power that culminates. Leadership, firepower, maneuver, protection, logistics, C3I, and the ability to anticipate the enemy's reaction are the key factors which contribute to the exhaustion of combat power; these are the key factors of culmination. This analysis also reveals the difficulty in predicting the occurrence of culmination because the key factors change constantly during the conduct of a battle.

At what point did the Soviet offensive manifest its culmination? Manstein launched his decisive counterstroke when the Soviets were closing on the Dnepr, but by then the Soviets had already culminated. Initially, it appears that culmination was planned to occur on the Dnepr but too many factors had changed during the campaign. These factors caused Soviet culmination sooner than expected, on the Donets. (See map C) The many failures of Stalin and the Germans' reaction shifted the Soviet culminating point. Therefore, one can assert that culmination can shift during the conduct of a campaign. Further historical examples will demonstrate how other campaign planners anticipated shifts in culmination.

Across the Dnepr: September 1943

The Soviet campaign to clear the right bank of the Dnepr in August and September 1943 was conducted over the same terrain as the previous campaign. However, the Soviets

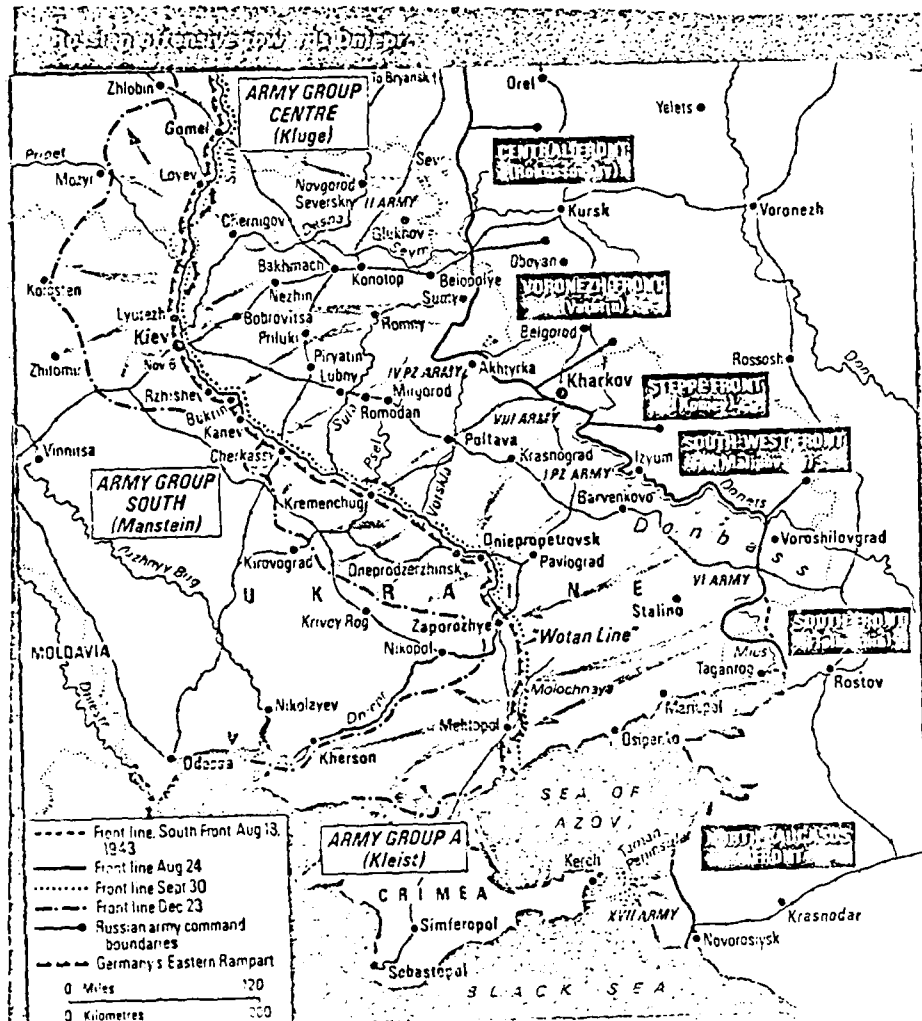


were more successful and this example demonstrates how one diminishes the effects of culmination. The race to the Dnepr River, from late August until late September of 1943, included over five Soviet fronts and five German armies. The Soviet fronts advanced from 175 to 330 kilometers on a frontage of 1,060 kilometers.

The objectives of the offensive were not limited to the establishment of a strategic bridgehead on the west bank of the Dnepr River. The Soviets sought to liberate the Ukrainian grain and the Donbas industrial regions. They planned to free the east bank of all German forces. (See map D)

The problem was that the Soviets had been in continuous combat since early July. Throughout July and August the five Soviet fronts first halted the German advance at Kursk and then initiated their own offensives in an attempt to tie down German operational reserves. Stavka accomplished this by repeated attacks along the Mius and Donets river lines. When German operational reserves were depleted, Stavka initiated the race to the Dnepr, a major strategic offensive along the entire front.

Soviet losses had been severe, but the Germans were unable to replace their own losses. The Soviets utilized the manpower of the recaptured regions to refill their depleted ranks. When the German line ruptured the Soviets pushed large mobile formations through the gaps,



MAP 1: The Race to the Dnieper. (Jeffrey Davies, *1943: The Dnieper in Action*, New York, NY: Ballantine Books Inc., 1988, pp. 147).

bypassing German resistance, to seize the operational objectives of the campaign.²²

The goal was to achieve the operational objectives before the Germans could reinforce the Dnepr line. Perhaps Stavka sought to delay culmination until Soviet forces had reached the far bank of the Dnepr. Once across this obstacle they conducted a pause in their operations until they were again in a position to continue the offensive to the west.

Firepower

The Soviets strengthened their fire support units during their drive to the Dnepr. Fire support weapons were concentrated at operational level headquarters.²³ Centralized in this fashion, fire support was then available where it was needed. Air power was managed in the same manner. The significant difference in this campaign was that air bases were brought forward prior to the campaign so that they would be available during the offensive.

Maneuver

Soviet planning reflected at least an implicit awareness of the notion of culmination. Strategic and operational level reserves were available to Stavka, which closely monitored their employment. A greater degree of echelonment was exhibited during the campaign. Echelonment evokes Tukhachevskiy's, and even Jomini's, theories

concerning the maintenance of combat power. The increase of motorized vehicles enhanced mobility, but more important the strategic and operational reserves were fully mobile.²⁴ The organization of tank armies and corps did not reflect the presence of foot-mobile units. Only motorized infantry accompanied these units.²⁵ The formation of maneuver groups and forward detachments also increased operational mobility. The operational mobility of units and their ability to move faster than enemy units delayed culmination throughout the depth of the battlefield. These units were tasked to disrupt the enemy's second line of defense or to locate his reserves.²⁶

The final factor of maneuver was the Soviet anticipation of crossing the Dnepr. Planning was done early to deal with this obstacle; additional engineer and reconnaissance units were attached to the forward detachments.²⁷ This planning enabled the Soviets to maintain the momentum of the attack. Momentum, the rate of advance times the combat power of the attacking force, also increased relative combat power, thus, delaying culmination.

Protection

Protection took on a special significance in this campaign. Large German formations were bypassed by the more mobile Soviet formations which raced ahead to seize operational objectives. Stavka also protected the force through surprise by selecting multiple crossing sites at

unlikely locations along the Dnepr. This was an attempt to overwhelm the mobile German reserves. Stavka also utilized partisans to disrupt the German rail lines into the objective area. These factors and the utilization of all available forces (economy of force) added to the Soviet efforts of protection. Finally, the Soviets mobilized local labor to improve transportation routes in an area that had been devastated by the German's scorched earth policy.²⁸

C³I

The Soviets dealt with C³I problems better during this campaign. Commanders communicated directly with forward detachments to stay abreast of friendly and enemy situations. The Soviets prevented overconfidence by planning and enforcing realistic and strict limits of advance. The bridgeheads on the Dnieper's west bank were the limit of the offensive.²⁹

Logistics

The Soviets also protected their forces with improved logistics capabilities. While waiting for the German Kursk offensive to begin the Soviets built their logistic base for the ensuing campaign. This time preparatory operations were conducted to establish bridgeheads on the west bank of the Donets. From here logistics bases supported the campaign to the Dnepr. Tank production had risen since the winter so reserve tank parks were also formed.³⁰ Additionally,

transportation, supply, and maintenance units appeared in units where before none had existed.³¹

Generalship

Most important, leadership positions remained the same in this campaign, but the attitudes had changed. The campaign was planned in detail before execution and there was a better understanding of the overall missions by generals at all levels. The generals were also more familiar with their units' capabilities.³² Improvisation was not required during this operation because procedures had become standardized. The standard organization of operational level units, forward detachments and mobile groups also alleviated problems.

However, it should be remembered that the Soviets experienced problems during this campaign. Stalin and Stavka still found it difficult to restrain themselves when victorious. The Kanev bridgehead experienced considerable success so Stalin ordered Stavka to attempt to expand it with an airborne operation. Unfortunately, insufficient planning time was provided, though the operation was well conceived.³³ Not all problems with the culminating point had been solved.

This campaign analysis does not reveal if the Soviets learned to predict where culmination occurred. But it does provide the student with an understanding of how the Soviets

managed this complicated problem. Evidence suggests that the Soviets limited their objective by setting the bridgeheads across the Dnepr as a limit of advance. The distance from their start line to these bridgeheads was from 175 to 330 kilometers.³⁴

They also organized their operational reserves for this mission and supported them with logistics capable of the specific task. They further realized that a major fight with strong German forces enroute to the Dnepr would degrade their possibilities for successful operational crossings of the Dnepr. Stavka planned for the traditional infantry forces to penetrate the Germans' first line before the mobile second echelon was employed. This is not the first example of the employment of second echelon forces but it does represent a refinement in their use because of their all-mobile configuration.

Besides providing a number of factors that contribute to culmination, the historical analysis has provided an example of what could occur if the culminating point is not considered by commanders and staffs as a tool of operational design during the planning phase. More important, this historical review has indicated the difficulty in predicting where and when the culmination of combat power will occur. It does however provide us with examples of how one army dealt with those factors of culmination on the battlefield.

RELEVANCE TODAY

Perhaps the culminating point is not a point or line in space and time on the battlefield but a zone that runs perpendicular to the axis of advance. Anywhere within this zone a force is at risk and the degree of risk varies. The variance is dependent upon the factors of the combat power model. This zone may also move during the conduct of an operation depending on changes in the factors; therefore, periodic reassessment is required.

To prevent the culminating area from shifting, one must maintain a combat power superiority over the enemy in terms of both the current and future battle. One must protect one's own force while subjecting the force of the enemy to peril. This effect was achieved by the Soviets through their echelonment of forces which enabled them to maintain the momentum of their attack. The Soviets also accomplished it through their ability to sustain the force. If one's actions can shift this zone, then it is vital to understand how the shift can be planned for and accomplished during execution of a campaign plan.

Considerations During Planning

Planning must include a process where the limits of current units and logistic systems are examined against the desired goals of the campaign. U.S. officers are familiar

with this approach. The Soviet use of norms is one example and a similar process is taught at the Command and General Staff College. Students learn the wargaming process during tactics instruction. The details are in FC 100-9: A Guide to the Application of the Estimate of the Situation in Combat Operations.

Relative combat power assessment is important because it is combat power itself which culminates. This issue is not the responsibility of any one staff section but ultimately of the commander himself. He must draw on information provided by each staff section and from subordinate commanders. Without a clear and precise knowledge of relative combat power disaster will result in any campaign.

Generalship

The commander's ability to assess relative combat power is directly related to his style of generalship. Without the proper command perspective he will never be able to discover and thus influence culmination. The style of generalship that was successful for the Soviets was simple communication of the senior commander's intentions. Awareness of the commander's intentions and of areas where he will accept risk are vital to a successful campaign.

C³I

The C³I system is as important as generalship because it is the medium through which the dynamic of generalship is

transmitted. C3I is a new term for an old function which many experts forget. Technology is not the only solution to a problem in this area. The presence of outstanding professional staff officers can often solve many problems. Location, activity, intentions of the enemy, terrain analysis, and weather forecasting are just a few of the intelligence section's important tasks. The timely relaying of this information will be vital to the commander's awareness of the culminating dynamic.

Logistics

Sustainment is a vital factor too if the effects of culmination are to be overcome. The Soviets experienced problems in sustainment throughout the war. The historical evidence reveals that poor logistics caused the Soviet failure in January 1943. An efficient system of small cellular logistics units is mandatory. These units must move sequentially with the units that are penetrating into and beyond the enemy's second belt of defense. Historical analysis also reveals that these units must be prepared to support a lengthy operation. But the organization of these logistics units can not be determined without testing and training. Subsequent to this testing, data must be accumulated for inclusion into the wargaming process of FC 100-9.35

Firepower

One must also plan for the firepower required to support the campaign. Today attack helicopter formations must train and maneuver to provide massed firepower. This additional firepower will enhance the traditional support of the field artillery units. This enhanced firepower can supplement offensive operations only if the sustainment system can support such operations.

One must also include airpower into the campaign plan. This requires not only mission planning but redeployment of these valuable assets to enable their support of extended operations.

Maneuver

Maneuver in this discussion includes the concepts of a second echelon, a reserve, highly mobile units, organization, and anticipation. To maintain momentum a second echelon and a reserve must be created and maintained throughout the campaign. Momentum is also maintained by highly mobile units. The organization of these units is important if speed is to be the product. The proper time to employ these mobile units must be anticipated during planning and reassessed during execution. Generalship and staff procedures must combine to enable the operational commander to anticipate the enemy's response and the moments of opportunity.

Protection

Finally, the efforts to protect one's forces must be considered in the planning phase. Initially, the plan must avoid enemy strengths, as the Soviets did in the race to the Dnepr. Every possible action of the enemy should be considered and briefly discussed during the planning stage. Planners must utilize every effort to surprise the enemy through deception. Relative combat power can shift favorably if friendly forces appear on the battlefield where the enemy does not expect them. Combat power is always more effective when used in conjunction with surprise or against flanks and rear. To achieve a favorable shift in combat power an adequate deception plan executed well is necessary. In the past the U.S. Army has used strategic level deception effectively but the record is not as complimentary at the operational level. Units must incorporate deception into training and tests. Planning must also include consideration of partisan or special operations forces employed to disrupt the enemy's rear services and lines of communications.

Considerations During Execution

During the campaign there are also a number of actions which impact on culmination. As the campaign progresses the factors contributing to culmination change. The culmination point or zone selected during planning shifts. This section

attempts to identify what actions one can take during the campaign to influence culmination.

Generalship

The general who fixes his attention on the close battle will never recognize the culmination of his combat power. Leaders must anticipate strain and stress on their forces; they must look beyond the current battle and anticipate the maintenance of the initiative. They must out-think the enemy and be impervious to ambiguity on the battlefield.

C³I

Efficient C³I systems enhance good generalship. The attacker must know about any changes in the enemy's situation. If the enemy weakens, if his resolve cracks, or if he is reinforced with an unexpected ally the commander must know. General MacArthur's C³I system failed in this regard at the Yalu River in Korea. Neither the intelligence systems nor his own generalship style aided him in identifying the possibility that China would enter the war. The C³I system relies not only on battlefield intelligence but national systems as well. The command and communications systems must also operate efficiently in conjunction with an adequate intelligence system. These command, control, and communications systems can alter the commander's perception about the location of the culminating zone. The disruption or sabotage of the enemy's C³I systems

is another way to shift culmination away from the friendly objective.

Logistics

The logistics system must continue to work during the campaign. The protection of rear areas and services will be vital to a campaign's success. This area is also a vulnerability of the enemy's. Currently, many assets, such as Special Operations Forces (SOF), are available to disrupt the enemy's rear. Without an operating sustainment system culmination quickly approaches and puts the objective out of reach.

Firepower

To take advantage of an enemy weakness during a campaign, one must quickly concentrate firepower. Airpower is very useful in this situation. Not only can one employ it in mass quickly against an enemy but one can also separate the enemy's operational echelons. The destruction, disruption, or delay of the enemy's second echelon will shift the culmination of combat power in favor of the friendly forces.

Maneuver

The greatest challenge to the campaign's success is the execution of maneuver. One must constantly seek enemy weaknesses, bypass enemy strength, and contain enemy forces with less mobile forces. If the enemy reacts in an unexpected manner alter the plan in order to maintain the

initiative. If an opportunity presents itself during the campaign explore it to its fullest.

Protection

One achieves protection by camouflaging operational units and intentions. First echelon, second echelon, logistical, air, and reserve units must be protected in this manner. At the operational level this is done through deception as well as operations security. This effort prevents the enemy from reacting too quickly to friendly actions.

UNRESOLVED ISSUES

This monograph has attempted to answer some of the important questions that center around the culminating point of combat power. It has not answered all the questions that center around this issue. There are three additional issues related to this topic which were not addressed. These issues are: the impact that nuclear weapons will have on culmination; the impact of airborne, airmobile, and special operations forces, and the impact that a multi-national alliance will have on a command structure's ability to overcome the effects of culmination.

The lessons of history cannot teach the relationship between tactical nuclear weapons and the culmination of conventional combat power but these weapons of mass

destruction do influence the concept. A defender's use of these weapons against either first or second echelon units can cause an advancing enemy to reach his culminating point rapidly. Conversely, an attacker's use of such weapons can delay his arrival at culmination by rapidly reversing the scales of combat power. Ultimately, the introduction of nuclear weapons by both antagonists into a campaign drastically alters the combat power ratios and shifts culmination in an unpredictable manner.

The increase of airborne, airmobile, and special operations forces will also add another variable into the equation of culmination. The defender may introduce these forces into an attacker's rear at an unexpected time or place to upset the balance of forces in that area and thus force the attacker to an early arrival at culmination. Conversely, the attacker's introduction of these forces into the depth of a defense may so disrupt a defender's cohesion that the attack will be able to continue deeper within its culminating zone.

The last problem is more complicated. Alliances, like the NATO alliance which is founded on mutual respect, can create a command and control structure which lacks the flexibility to respond quickly to the changes of culmination. The theories of Tukhachevskiy are directed toward shattering a defense's cohesion, allied or otherwise.

Campaign planners must address these topics in order to understand fully the impact of culmination on the modern battlefield. This monograph provides a platform for further discussion and doctrinal development related to the culminating point.

ENDNOTES

¹ Wallace P. Franz, "Operational Concepts," Military Review, July 1984, pp. 2-3.

² U.S. Army, FM 100-5, Operations, 1985, p. 7-2.

³ Karl von Clausewitz, On War, trans. M. Howard and P. Paret (Princeton, N.J.: Princeton University Press, 1976), p. 528.

⁴ Ibid., p. 570.

⁵ Ibid., pp. 528 and 572.

⁶ Ibid., p. 572.

⁷ Baron De Jomini, The Art of War, trans. G.H. Mendell (Westport, Connecticut: Greenwood Press, Publishers, 1862), p. 184.

⁸ Ibid., pp. 184-185.

⁹ Mikhail Tukhachevskiy, New Problems in Warfare, Reprinted in an Art of War Colloquium Publication, (Carlisle Barracks, Pennsylvania: November 1983), pp. 13-14. See also the discussion on the changing battlefields impact on doctrine in Amnon Sella, "Red Army Doctrine and Training on

the Eve of the Second World War," Soviet Studies, April 1975, pp. 2-5.

10 Tukhachevskiy, p. 67. One observes the impact of Tukhachevskiy's theories in the Soviet Field Regulations of 1936. See Selected Readings in Military History: Soviet Military History. Volume I, The Red Army, 1918-1945, Fort Leavenworth, Kansas, 1984, pp. 113-114.

11 R. Savushkin, "Development of Theory of Successive Offensives Reviewed," translated from Voyenno Istorichesskiy Zhurnal May 1983, pp. 77-83. Reproduced in Selected Readings in Military History: Soviet Military History. Volume I, The Red Army, 1918-1945, Fort Leavenworth, Kansas, 1984, pp. 73-96.

12 Ibid., p.44 and pp. 48-49.

13 U.S. Army, FM 100-5, Operations, p. C-6.

14 Huba Wass de Czege, "Understanding and Developing Combat Power," February 1984. Reproduced in U.S. Army Command and General Staff College School of Advanced Military Studies, Foundations of Military Theory Readings, Fort Leavenworth, Kansas, 1985, pp. 91-144.

15 David M. Glantz, The Great Patriotic War and the Maturation of the Operational Art: 1941-1945 (Fort Leavenworth, Kansas: U.S. Army, 1985), pp. 5-16 and 5-17.

16 David M. Glantz, From the Don to the Dnepr: A Study of Soviet Offensive Operations, Dec 1942-Aug 1943, (Fort Leavenworth, Kansas: U.S. Army, 1984), pp. 165-166.

17 Ibid., pp. 131-134 and 166-168. Also see Erich von Manstein, Lost Victories, (Novato, Ca.: Presidio Press, 1982), pp. 364-368, 390, 396, 402-405. In reference to premature commitment of reserves see David M. Glantz, Toward Deep Battle: The Soviet Conduct of Operational Maneuver (Carlisle Barracks, Pennsylvania: Center for Land Warfare, U.S. Army War College, 1985), p. 92.

18 Glantz, From the Don to the Dnepr, pp. 107-110 and 165-166.

19 Ibid., pp. 110, 117, 130, 142, 167-168.

20 Ibid., pp. 157, 165, and 237. See Manstein, p. 411.

21 Glantz, From the Don to the Dnepr, pp. 143, 165, 239-241. See Manstein, pp. 431- 442.

22 T. N. Dupuy and Paul Martell, Great Battles on the Eastern Front (New York, N.Y.: Bobbs-Merrill Company, Inc., 1982), pp. 106-118.

23 James Dunnigan et al., War in the East: The Russo-German Conflict, 1941-1945 (New York, N.Y.: Simulations Publications, Inc., 1977), p. 123.

24 T.N. Dupuy, pp. 106-110.

25 D. M. Glantz, From the Dnepr to the Vistula: Soviet Offensive Operations - November 1943-August 1944 (Carlisle Barracks, Pennsylvania: Center for Land Warfare U.S. Army War College, 1985), pp. 10 and 12-13. See also Steven J. Zaloga and James Grandsen, Soviet Tanks and Combat Vehicles of World War Two (London: Arms and Armor Press, 1984), pp. 146-149.

26 Glantz, From the Dnepr to the Vistula, p. 13.

27 John Erickson, The Road to Berlin (Boulder, Co.: West View Press Inc., 1983), p. 129.

28 Paul Carell, Scorched Earth, trans. Ewald Osers (New York, N.Y.: Ballantine Books, Inc., 1971), pp. 381-386.

29 Erickson, pp. 122-124.

30 Zaloga, pp. 224-225.

31 See A653-6/3 Individual Development Course handout Appendix I p. 29.

32 Earl F. Ziemke, Stalingrad to Berlin (Washington, D.C.: U.S. Government Printing Office, 1968), pp. 145-146.

33 Graham H. Turbiville Jr., "Paradrop at the Bukrin Bridgehead," Military Review, December 1976, pp. 32-34. See also Glantz, From the Dnepr to the Vistula, pp. 14-16.

34 T. N. Dupuy, p. 111.

35 Boardgames, computer simulations, and command post exercises will not solve this problem. The data necessary is not available. Echeloned maneuver units, equipped with M-1's, M-3's, and the new generation of helicopters have not maneuvered in the manner necessary to provide the data. The average territory gained for the campaigns analyzed in this paper were 175-300 kilometers, but contemporary rates may exceed 600 kilometers.* In order to organize logistical units properly to support these rates of advance large scale training maneuvers are necessary. The data regarding mechanical failures, parts replacement rates, fuel consumption, and time required to maintain a unit will be the product of such large scale maneuvers.

* NOTE For Soviet projected rates see Garrett R. Fonda, "Culminating Points and Soviet Offensive Combat," Draft Paper for the Special Operations Committee, DTAC, CGSC, 1986, p. 5.

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